REMARKS

By the present amendment, the title has been changed, the abstract has been revised,[1] claims 19, 22, and 24 have been rewritten in an independent format, claims 17, 18 and 23 have been cancelled[2] and claim 35 has been added. Upon entry of this amendment, claims 19-22, 24, and 35 will be pending in the application.

Claim Rejections - 35 USC § 103

Claims 19-21 and 24 have been rejected as being obvious over U.S. Patent No. 4,300,878 to Ible in view of U.S. Patent No. 5,842,171 to Miyazono or as being obvious over U.S. Patent No. 4,274,821 to Kiemer in view of Miyazono.

Now independent claim 19 sets forth an apparatus wherein the guide insert includes a passage for each set of reinforcement elements and wherein the passages are laterally spaced from each other a distance between about 0.20 mm and about 0.50 mm.[3] Now independent claim 24 sets forth an apparatus wherein the guide insert has passages are grouped in sets, wherein intra-set passages are spaced apart a lateral distance between about 0.11 mm and about 0.13 mm and wherein inter-set passages are spaced apart a distance between inter-set passages is between about 0.13 and about 0.23 mm. The Examiner admits that neither Ible nor Kiemer show or suggest the claimed inter-set distances and/or intra-set distances. She contends, however, that Miyanzono discloses such spacing of its reinforcement elements whereby it would have

---

[1]As requested by the Examiner, the title and the abstract have been rewritten to reflect the elected subject matter.

[2]The cancellation of claims 17 and 23 eliminates the issue of whether these claims are anticipated by U.S. Patent No. 4,563,140 to Turecek.

[3]The Examiner appears to admit that, in the Ible apparatus and the Kiemer apparatus, the passages in the guide insert are intended to (and thus designed to) to guide a single element. She contends, however, that this intended design does not preclude the openings from being used to guide a set of elements whereby they teach the claimed structure.

been obvious to modify the Ible/Kiemer die inserts so that the passages included such spacing, to enable "tires of improved durability to be produced."

Miyanzono discloses a calendered ply containing the reinforcing elements formed by using a combination of comb-type roll and calender rolls. Specifically, the reinforcing elements are divided into plural groups each containing several reinforcing elements (such as groups of two reinforcing elements) by the comb-type roll and then coated with a rubber sheet by means of the calender rolls to form the calendered ply.[4] Accordingly, to the extent that Miyanzono even suggests the claimed intra-set distances and/or the claimed inter-set distances, these teachings are limited to plies made by calendering. Indeed, Miyanzono teaches that such spacing should be accomplished by calendering, probably to avoid the issues introduced when too-tight tolerances are attempted with an extrusion process. Thus, if one of ordinary skill wanted to produce tires of improved durability, he/she would use calendering, not extrusion, to accomplish this objective.

Claim 22 has been rejected as being obvious over Ible in view of Miyazono and further in view of U.S. Patent No. 4,132,756 to Ferrentino, or as being obvious over Kiemer in view of Miyazono and further in view of Ferrentino. Now independent claim 22, and added claim 35, set forth an apparatus wherein the guide insert having passages which are rectangular in cross-sectional shape. The Examiner appears to admit that the Ible, Kiemer, and Miyazono fail to teach passages that are rectangular in cross-section shape. However, she contends that it would have been obvious, in view of Ferrentino, to provide such rectangular passages "for the purposes of producing force components such that the elements maintain pre-established distances."

Ferrentino discloses an extrusion head for making telecommunication cables in which optical fibers are uniformly spaced.[5] The Ferrentino extrusion head comprises a

---

[4]The calendered ply is then slantly cut in the widthwise direction and the cut plies are rejoined at their widthwise ends with each other to form a continuous rubber strip, which is wound into a coil and then supplied to a tire building step.

[5]Thus, it may be initially noted that Ferrentino is not directed towards making an elastomeric sheet with a plurality of reinforcement elements embedded therein, but

mandrel 32, a conical die 33, and a die-seating element 35. The mandrel 32 includes a converging portion 39 having two grooves 40 and 41 and the wires W "travel closely adherent to the race of the grooves 40 and 41." The conical die 33 comprises an inner surface having an upstream conical portion 42 and a downstream duct portion 43. (See Ferrentino Figure 4, below.) As a result of mandrel geometry, the grooves 40 and 41, and the die shape, the wires W "are subjected to force components which maintain them at pre-established distances."[6]

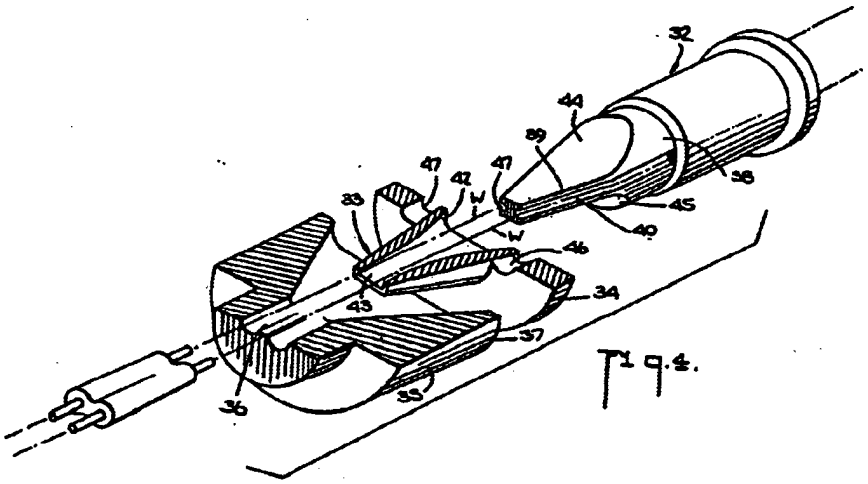

Fig. 4.

It is respectfully submitted that Ferrentino does not show or suggest using rectangular passages *per se* to control intra-wire distances, but rather an overall die shape, in combination with a grooved mandrel geometry, to achieve the tight tolerances required for optic cables.[7] Significantly, this overall die shape and grooved mandrel

---

rather a single cable carrying a plurality (*i.e.*, two or four) of optical fibers.

[6]Also, two separate ducts 46 and 47 are provided for the further admission of plastic material into the space between the die 33 and the element 35.

[7]It is noted that in applicant's invention, the rectangular shape eliminates the space above and below the elements thereby minimizing the potential for transverse misalignment. This is not shown or suggested by the applied art.

geometry would not be compatible with an Ible-like extrusion die and/or a Kiemer-like extrusion die. Accordingly, the apparatus of claim 22 and/or added claim 35 cannot be considered obvious.

Conclusion

This application is now in condition for allowance and an early action to that effect is earnestly solicited.

Respectfully submitted,

RENNER, OTTO, BOISSELLE & SKLAR, LLP

By _____
Cynthia S. Murphy, Reg. No. 33,430

1621 Euclid Avenue
Nineteenth Floor
Cleveland, Ohio 44115
(216) 621-1113

CERTIFICATE OF MAILING (37 CFR 1.8a)

I hereby certify that this paper (along with any paper or thing referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date: October 22, 2004

_____
Claudia Bader

R:\CSM\FIRE\P9912142\P9912142US.r04.reply.wpd